

# Model JSOF-250T Upright Forced Convection Oven





Upright Forced Convection Ovens provides a big volume of chamber for large scale laboratory or industrial purpose.

Nevertheless its large volume, dual heating system on upper and lower compartment with two separate heating elements and blowers provide better air circulation throughout the chamber to achieve excellent temperature uniformity and faster heat up time.

### **MAIN FEATURES**

### **PERFORMANCE**

- -Control Temperature Range from ambient +10 °C to 250 °C
- -Forced air convection for fast drying application
- -Aero-dynamic chamber designed with circulation blower to achieve superior thermal uniformity
- -Separate heating compartment located on side wall for contamination free and maintenance free
- -50mm thick high thermal efficiency mineral wool with woven aluminum barrier sheet saves energy and less dust

### **CONSTRUCTION**

- -Durable epoxy powder coated metallic casing
- -Corrosion resistant Stainless Steel 304 chamber with seamless round cornered edge allows easy cleaning and prevent leakage
- -Double layered glass window for easy observation of samples
- -Ventilation damper

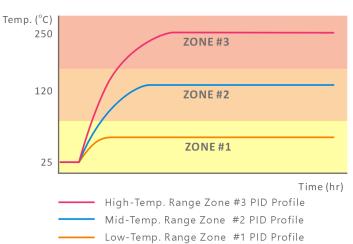


### **CONTROLLER HIGHLIGHT**



### -3 ZONE PID ALGORITHM

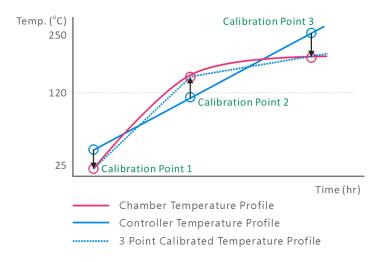
Usable temperature range divided into three zones (LOW/MIDDLE/HIGH) and each ZONE has its individual PID parameters optimized to the range, and it provides precise and superior temperature control characteristic to whole temperature range.





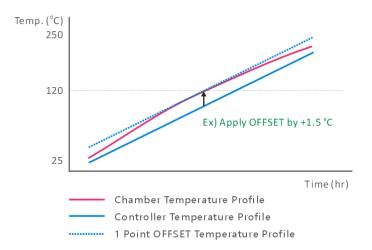
#### -3 POINT CALIBRATION FUNCTION

A perfect calibration tool to calibrate chamber at THREE DIFFERENT TEMPERATURE POINTS to adjust multiple temperature bias to increase the temperature accuracy of WHOLE TEMPERATURE RANGE.



### - 1-POINT OFFSET FUNCTION

Provides simple and easy calibration tool to calibrate chamber at ONE SPECIFIC TEMPERATURE POINT in frequent use.





#### **CONTROLLER**

-DIGITAL MICROPROCESSOR PID TEMPERATURE CONTROLLER

Integrated Digital Microprocessor Control System

-GRAPHIC LCD DISPLAY

Back Light Graphic LCD Display provides user-friendly operating information

-UV COATED POLYCARBONATE TOUCH PANEL

Equipped with Capacitive LED Lighting Touch Button provides sensitive touching operation and durability

-ENCODER TYPE JOG DIAL

Push to Start and Stop, Rotary turn to change values provides easy and simple user interface

-0.1 °C CONTROL RESOLUTION

-Auto-Stop Timer 1 min ~ 99 hour 59 min

-Auto-Start Timer 1 min ~ 99 hour 59 min

- -Temperature and Timer Memory Function
- -3-ZONE PID ALGORITHM
- -3-POINT CALIBRATION
- -1-POINT OFFSET CALIBRATION
- -Operating temperature and remaining timer resume in case power outage and restoration
- -CLASS A PT-100 Ω Sensor
- -RS-232C PC COMMUNICATION INTERFACE [OPTION]

#### **CONVENIENCE**

- -Double layered tempered safety glass window for easy observation of samples
- -Stainless Steel 304 Chamber with seamless round cornered edge allows easy cleaning and prevent leakage
- -Removable and height adjustable shelf by 25mm spacing
- -Easy-to-open and air-tight one touch door latch
- -Opening size adjustable ventilation damper
- -Door switch cut-off heater and blower to protect user from exposure to hot air

#### **SAFETY**

- -PT SENSOR SHORT OR DISCONNECTION AUDIO VISUAL ALARM
- -DUAL OVER TEMPERATURE CUT-OFF BY CONTROLLER AND INDEPENDENT THERMOSTAT

Controller cut-off heater and AUDIO VISUAL ALARMS

ALARM HIGH: +10 °C above set temp.

ALARM LOW: -10 °C below set temp.

Independent analog thermostat cut-off heater above set temperature

- -DOOR OPEN AUDIO VISUAL ALARM
- -OVER CURRENT CUT-OFF: Electric Circuit Breaker



#### **SPECIFICATIONS**

Art. No.	JSOF-250T

### **Dimension Data**

Chamber Volume 250 Liters

Inner Dims. (W x D x H mm) 500 x 500 x 1000 Outer Dims. (W x D x H mm) 895 x 675 x 1360

Window Dims. (W x H mm) 150 x 460

No. of Shelf Positions 36 ea

No. of Shelf included 3 ea

No. of Ventilation Damper 1 ea

#### **Performance Data**

Heating System Forced Air Convection Temp. Range Amb.  $+10 \, ^{\circ}\text{C} \, ^{\sim} \, +250 \, ^{\circ}\text{C}$ 

Accuracy at 120 °C  $\pm 0.3$  °C Uniformity at 120 °C  $\pm 1.5$  °C Heat up time to 120 °C 10 min.

#### Controller

Interface

Processor Digital Microprocessor PID Temperature Controller

Display Back Light Graphic LCD Display

Panel UV Coated Polycarbonate Solid Touch Panel
Button Capacitive touch LED Lighting Touch Button

Control Logic 3 Zone PID Control

Calibration 1 Point Temperature OFFSET

3 Point Temperature Calibration

Push and Rotary encoder type Jog Dial

Resolution 0.1 °C

Auto-Stop Timer  $1 \text{ min.} \sim 99 \text{ hr } 59 \text{ min}$ Auto-Start Time  $1 \text{ min.} \sim 99 \text{ hr } 59 \text{ min}$ Sensor CLASS A PT-100  $\Omega$  Sensor

Power Restoration Power and Timer Restoration Function in case of power outage

PC Communication Interface RS-232C PC COMMUNICATION INTERFACE [OPTION]



### **Safety Data**

Safety Device Sensor short or disconnection AUDIO VISUAL ALARM

Controller cut-off heater and AUDIO VISUAL ALARM

HI-ALARM : +10 °C above set temp. LO-ALARM : -10 °C below set temp.

Independent analog thermostat cut-off heater above set temperature

Door sensor Cut-Off heater and fan AUDIO VISUAL ALARM

Over Current Cut-Off

### **Material Data**

Body Epoxy Powder Coated Steel
Chamber Stainless Steel 304 (AISI304)
Insulation 50 mm Woven Mineral Wool

#### **Electrical Data**

Rated voltage  $220 \pm 10\%$  VAC Power frequency 50 / 60Hz

Heater Output 3.0 kW (1.5 kW x 2)Nominal power 3.1 kW 14.0 amp

Phase 1 Phase

Plug configuration CEE 7/7 Schuko or BS 1363

#### **Usable Condition**

Temp. & Humidity  $5^{\circ}\text{C}$  -  $40^{\circ}\text{C}$ , < 80% RH

### **Packaging Data**

Type of packaging Wooden Crating Shipping Dims. (W x D x H mm )  $1050 \times 800 \times 1530$ 

Net Weight 115.0 kg Shipping Weight 135.0 kg



# **ORDERING INFORMATION**

Art. No.	Descriptions	Voltage
JSOF-250T	Upright Forced Convection Oven, 250 L	220 VAC 1~ ph 50/60Hz

# **OPTIONAL ACCESSORIES**

Art No.		
PHS-A06	Perforated Shelf, Stainless Steel 304 for JSOF-250T	W470 x D480 mm
PHS-B06	Wire Shelf, Stainless Steel 304 for JSOF-250T	W470 x D480 mm
PHS-A99	Shelf Support, Set of 4	

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